

Summary

Title: METHOD FOR TWIN-SCREW TYPE COMPRESSION AND DEHYDRATION OF HYDROUS POLYMER CONTAINING RUBBER COMPONENT AND THE SAME DEHYDRATOR
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Abstract:

PURPOSE: To effectively dehydrate the subject polymer without any change in physical properties by draining a mixture of various polymers containing rubber components and water, etc., in a compressing dehydrator equipped with a barrel and two-axle screws, then cooling and solidifying the mixture, pulverizing the solidified mixture and extruding the pulverized mixture into flaky granules.

CONSTITUTION: A mixture of various polymers containing rubber components and liquids such as water is charged to a raw material charging zone No. 1 of a twin-screw type compressing dehydrator composed of a barrel 2 provided with the raw material charging zone No. 1 having a hopper 5, a draining zone Nos. 2 and 3 equipped with draining slits, a compressing zone Nos. 4 to 6 on the downstream side of the draining zone, a deaerating zone Nos. 7 to 9 for gasifying the residual zone of the liquids and removing the formed gases and a cooling zone Nos. 8 to 10 with one end opened to the outside and two-axle screws 1, inserted into the barrel 2 and rotating while mutually meshing. The liquids are mostly drained in the draining zone and the residual liquids are evaporated in the deaerating zone. Temperature is controlled so as to keep the mixture in a (semi)molten state and the mixture is then cooled and solidified in the cooling zone, subsequently pulverized, cut and extruded through the opened end of the barrel into flaky granules. Thereby, the polymer containing the rubber components is dehydrated.

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